A REVISION OF THE AUSTRALIAN AND NEW GUINEA DRYMINI (HETEROPTERA-LYGAEIDAE)

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Plates 3-7, text fig. 1

SUMMARY

Two species of Anstralia and one of New Guinea Drymini were previously known. As a result of this study, using all available Australian collections, two species are shown to occur in New Guinea, one a common Australian species, and seventeen species, fifteen of them new, are recorded from Australia. All eighteen species are keyed, figured, and described, and have been placed in twelve genera, eight of which are new. Where available male genital capsule dorsal morphology was used along with external details to provide a clue to the arrangement and relationships of these twelve genera.

INTRODUCTION

The Drymini are a tribe of the complex subfamily Rhyparochrominae of the family Lygaeidae. Rhyparochrominae may be easily distinguished from other subfamilies of Lygaeidae by having the fourth abdominal intersegmental suture (usually the second visible, I and II are usually hidden by the metathorax) not reaching the outer (or upper) edge of the abdomen ventrally, but instead it curves away forward and becomes evanescent before reaching the apical end of the second suture (text fig. A). The Drymini have the spiracle on segment IV of the abdomen ventral in position and have two dull spots each bearing a long hair (trichobothrium) on sternum V above the curved portion of the fourth abdominal suture, the hindmost of these is placed in front of spiracle V (text fig. A).

Three species were known from Australia and New Guinea; Mizaldus woodwardi from New Guinea, and Paradrymus exilirostris and Taphropeltus australis from Southern Australia.

Through the good offices of the Directors of the Australian Museum, Sydney, the National Museum, Melbourne, the Chief C.S.I.R.O., Division of Entomology, Canberra, Dr. T. W. Woodward, Department of Entomology, University of Queensland, Brisbane, and Mr. Cremer, Tasmanian Forestry Commission, Maydena, Tasmania, I was able to assemble almost, if not all, available specimens of Australian and New Guinea Drymini in Australian collections. Since this paper was submitted and during proof reading I have received notification of an impending loan of a collection of New Guinea Drymini from the Bishop Museum, Honolulu. This material will be treated in a subsequent paper.

Taphropeltus australis can no longer be placed in the Northern Hemisphere genus Taphropeltus and for this species a new genus had to be created. I was able to recognize 18 species of this tribe from Australia and New Guinea, two from New Guinea and seventeen from Australia (one species is shared). Fifteen of these species are new. The species have been arranged in twelve genera, seven of these are new, and apparently restricted to Australia (6) or Australia and New Guinea (1). Of the five previously described genera Paradrymus is exclusively Australian, Brentiscerus occurs outside Australia only in New Zealand, Appolonius occurs also in India, Sarawak and the New Hebrides (Scudder in litt.) and Africa, Mizaldus in Africa and India, and Scolopostethus is rather widely distributed.

In arranging the genera satisfactorily a number of difficulties were encountered using such features as presence or absence of lateral explanate keels to the pronotum, whether the pronotum was transversely constricted, and whether the scutellum had a prominent trivadiate keel or not. To help resolve these problems male genitalia where available were extracted and studied after potashing the tip of the abdomen. A discussion on these points follows the systematic descriptions.

In the lists of disposition of specimens the following abbreviations have been used.

A.M. Australian Museum, Sydney.
A.N.I.C. . . . Australian Insect Collection, Canberra.
N.M. National Museum, Melbourne.
Q.M. Queensland Museum, Brisbane.

S.A.M. South Australian Museum, Adelaide.

U.Q. Department of Entomology, University of Queensland, Brisbane.

I wish to express my appreciation to the Directors of these museums, the chief of the C.S.I.R.O. Division of Entomology, Dr. T. E. Woodward, University of Queensland, and Mr. Cremer, Maydena, Tasmania for the opportunity to see their material.

KEY TO AUSTRALIAN AND NEW OF DRYMINI	GUINEA GENERA
1. 5 mm long or longer	
2. First antennal segment just surpassing apex of head; head apically very acuminate; pronotum markedly sinnate in region of transverse constriction. Apex of fore tibiae of male with a strong spine First antennal segment markedly surpassing apex of head which is not markedly acuminate; pronotum only vaguely sinuate laterally in the region of the transverse constriction	Paradrymus Bergroth Megadrymus gen. nov.
3. Lateral margins of pronotum carinate or marginate but not explanate, <i>i.e.</i> , not forming a narrow flange along the lateral margins	Mizaldus Distant 4.
4. Lateral margins of pronotum straight and/or convex but not or only very slightly concave in region of transverse impression	5. 10.
5. Transverse constriction of pronotum virtually absent	Brachydrymus gen. nov. 6.

6.	Transverse constriction placed well behind middle	7. 8.	
7.	Sides of pronotum in basal 3 virtually parallel	Retrodrymus gen. nov. Austrodrymus gen. nov.	
8.	Sides of pronotum convex or if straight strongly converging anteriad, pronotum much wider at base than apex (2:1)	9. Apollonius Distant	
9.	Hemelytra conspicuously wide in region of apical $\frac{2}{3}$ of corium Hemelytra with corial margin more parallel, conspicuously convex at about $\frac{1}{3}$ of exterior corial margin	Gastrodomorpha gen. nov.	
10.	Transverse constriction placed well behind middle	Pseudodrymus gen. nov.	
11.	Scatellum with a prominent triradiate keel	Brenticerus Scudder Scolopostethus Fieber	
Mizaldus Distant 1901			

Mizaldus Distant 1901

Mizuldus Distant, 1901, Ann. Mag. nat. Hist., (7)8: 483. 1903, Fauna Brit. Ind. Rhynch., 2: 68. Bergroth, 1918, Philipp. J. Sci., 13(2 & 3): 87.

Head triangular, pointed in front of eyes. Eyes not quite touching anterior margin of pronotum. Ocelli close to eyes and remote from anterior margin of pronotum, widely separated. First segment of antennae somewhat incrassate and extending well in front of head,

second segment the longest. Pronotum with anterior margin narrower than head with eyes, fore lobe semiglobose, a strong medial transverse constriction separating fore and hind lobe, the latter flatter than fore lobe; outer margins of fore lobe strongly convex to region of transverse constriction, margins of hind lobe likewise very convex, hind margin feebly sinuate, humeral angles slightly raised. Only a feeble keel along lateral margins of pronotum.

Scutellum acute apically, medially elevated into a triangular tumescence, not into a triandiate keel as many other Australian Drymines, in front of tumescence depressed.

Corium somewhat longer than abdomen, outer margin of corium shallowly concave and pilose in basal half.

Fore femora moderately incrassate, unarmed, or with upwards of nine spines on the distal half of the ventral surface, the first spine large.

Type: Rhyparochromus dimidialus Walker, 1872 — Mizaldus woodwardi Slater & Carnyon 1963, selected by Distant 1903, loc. cit.: 68.

Mizaldus woodwardi Slater & Carayon, 1952

Plate 4, fig. A

Rhyparochromus dimidiatus Walker, 1872, Cat. Heter., 5: 107 (preocc.).

Mizaldus dimidiatus Distant, 1901, Ann. Mag. nat. Hist., (7)8: 484.

Mizuldus woodwardi Slater and Carayon, 1963, Proc. R. ent. Soc. Lond., (A)38: 4.

Head, anterior lobe of pronotum, depressed parts of scutellum, and thorax beneath piccons black. Anteclypeus, hind lobe of pronotum, median raised portion of scutellum, most of distal portion of corium and patches on membrane, first segment of antennae, hind margin of metathorax, femora, and whole abdomen brown, the latter with fine golden pilosity. Terminal three segments of antennae, tibiae and tarsi, basal third of corium and a marginal spot near apex, and patches on membrane luteous, veins white.

Eyes large and prominent but not pedunculate, head with a few scattered punctations, quite difficult to see, otherwise smooth with a scattered pilosity. Antennae pilose, hairs about as long as diameter of second segment, ratio of segments 32:56:37:37.

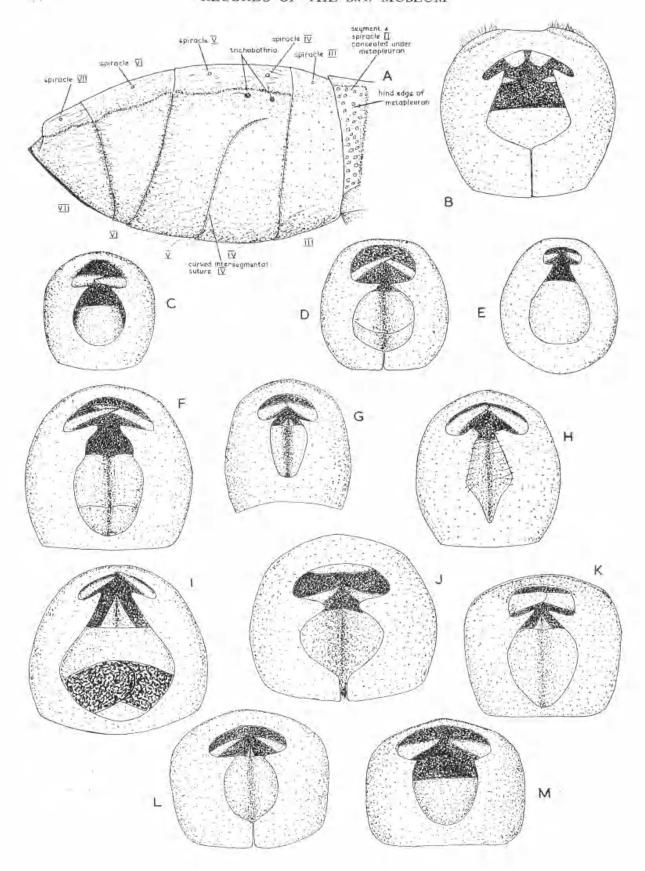


Fig. 1

- A. Side view of abdomen of Drymine (Retrodrymus abundans n.sp.) showing arrangement of trichobothria on Segment IV and the typical Rhyparochronine curved fourth intesegmental suture.
- B. Male genital capsule from above of Mcgadrymus terraereginae n.sp.
- C. Male genital capsule from above of Isopeltus australis (Bergroth).
- D. Male genital capsule from above of Paradrymus exilirostris Bergroth.
- E. Male genital capsule from above of Brentiscerus pallidus n.sp.
- F. Male genital capsule from above of Brentiscerus major n.sp.
- G. Male genital capsule from above of Brentiscerus triocellatus n.sp.
- H. Male genital capsule from above of Retrodrymus abundans n.sp.
- I. Male genital capsule from above of Appolonius territorialis n.sp.
- J. Male genital capsule from above of Scolopostethus forticornis n.sp.
- K. Male genital capsule from above of Pseudodrymus florestalis n.sp.
- L. Male genital capsule from above of Austrodrymus flindersi n.sp.
- M. Male genital capsule from above of Brachydrymus lateabundans n.sp.

Pronotnm wider than long (100:62), fore lobe almost glabrous, smooth except for a few scattered small punctations; hind lobe pilose near lateral margins with denser and large punctations.

Scutellum sparsely punctate, almost glabrons. Hemelytra almost glabrons but sparse hairs on clavus and basal half of corial margin. Clavus with three parallel rows of punctations. Corium with two rows parallel to and immediately adjacent to claval suture and a half row paralleling outer basal margin of corium, basal third of remaining corium almost free of punctations, apical $\frac{2}{3}$ with scattered heavy punctations.

Beneath with sparse scattered punctations on thoracic pleura, abdomen impunctate. Fore femora thickest, with on distal half beneath about 9 spines in irregular row on inner edge, fourth very large, and several spines on outer edge.

Length: 4.25 mm.

Type: New Guinea, in British Museum (Nat. Hist.). Our specimen, a female from Mount Lamington, N.E. Papua, 1,300-1,500 feet, C. T. McNamara (S.A.M.).

Mizaldus lacks the prominent explanate margin of other Anstralian Drymines and cannot be easily linked with any other genus.

Megadrymus gen. nov.

Large for the tribe, subelongate, hemelytra tapering somewhat posteriad. Head relative small, relatively elongate, width: length about 20:15, but not exceptionally produced in front of eyes, tylns normally formed. Eyes nearly touching anterior margin of pronotum, ocelli remote from each other and in a line formed by hind margins of eyes. First segment of antennac slender, surpassing apex of head by about $\frac{2}{3}$ of its length. Remaining segments longer, second the longest.

Anterior margin of pronotum obviously concave, lateral margins strongly convex in anterior third thence almost straight and diverging to humeral angles, perhaps very slightly indented in region of transverse constriction. Fore lobe of pronotum moderately convex, declivous towards collum giving pronotum an arched appearance in side view, transverse constriction between fore and hind lobes placed slightly behind middle, hind lobe hardly convex.

Scutellum large with a prominent triradiate keel, the basal arms of this keel enlarged and swollen, apical arm reaching apex of scutellum. Lateral margins of corium feebly excavate at region of apical half of scutellum. Two rows of punctations on corium paralleling claval sntnre separated from each other by a raised callous area, a line of punctures more or less paralleling outer edge in basal outer half of corium, breaking up into scattered punctations in distal half. The veins apparent on corium, the callous area near claval suture, the space between the outer line of punctations bordering this vein and the median vein impunctate, space between median and outer vein with scattered punctations. Clavus with three rows of punctations, the median converging steadily towards the outer posteriad and coalescing with it before apex.

Whole thorax beneath strongly punctate except evaporative areas and two shagreened areas on lateral margins of meso- and metapleura. Underside of head parallel to vertex to level of anterior margins of eyes, thence suddenly convex to apical margin of prothorax. Abdomen finely pilose and impunctate. Fore femora incrassate and heavily armed with denticles on both ventral margins in apical half, one a large spine.

Male genital capsule with upper opening partially divided into two by inwardly directed processes of the lateral margins, claspers shaped rather like scorpion venom glands, proctiger covering whole of anterior cavity.

Type: Megadrymus terraereginae sp. nov., the only species in the genus.

Megadrymus terraereginae sp. nov.

Plate 3, fig. D. Text fig. 1B

Fuscous black; antennae, lateral explanate margin of pronotum, and in one specimen hind lobe of pronotum, scatchum, and hemelytra testaceous above. Beneath in all examples (except rostrum and legs which are testaceous and in one example the hind margins of the pro and metapleura) fuscous. Apical 3 of last autennal segment and some apical spots on the corium pale testaceous or luteous, membrane a very pale smoky, veins and immediate areas on either side whitish.

Ratio of segments of antennae 12:20:19:18. Head very much shorter than pronotum, 10:32. Fore femora with apical halves flattened, beneath with smaller spines and a large spine on the anterior margin.

Length: 5.8-6.0 mm.

Localities: Queensland holotype (female) | Reg. no. T6212|, Brisbaue, 15 November 1962, coll. E. B. Teli (Q.M.); allotype (male), Eagle Heights Mount Tambourine, from leaf mould in rain forest, 18 July 1954, coll. T. E. Woodward; paratype (female), Toowoomba, 2 February 1951, coll. J. Letchford (U.Q.).

Paradrymus Bergroth 1916

Paradrymus Bergroth, 1916, Proc. roy. Soc. Viet. 29: 11.

Body ovate, head elongate, anteclypens (tylus) strongly produced. Eyes prominent, remote from anterior margin of pronotum, ocelli in a line formed by rear margins of eyes, widely separated. Antennophores prominent, first segment of antennae not incrassated, about as thick as the terminal segments, second segment the longest.

Anterior margin of pronotum almost straight, perhaps a little concave, with a prominent collar. Lateral margins of pronotum marginate and explanate, humeral angles somewhat produced, otherwise hind margin straight or feebly concave. Fore lobe of pronotum convex, separated from hind lobe by a transverse constriction; hind lobe flatter, foveate anteriorly in the middle and feebly laterally just inside the raised humeral angles. Lateral margins of fore lobe convex to transverse impression, of hind almost straight.

Scutellum acministe with a prominent central trivadiate cavina, the tip of the central arm almost reaching apex. Lateral margins of scutellum feebly sinuate when clavus lifted, lateral margins of covinm simuate, noticeably concave in region of about half length of scutellum. Clavus with three not very parallel rows of punctures, covium with three rows adjacent to claval suture and otherwise fairly densely punctate, with two or three prominent longitudinal raised veins. Whole thorax beneath strongly punctate with the exception of the evaporative area. Fore femora incrassated and armed with a series of small tubercles and one large one distally. Abdomen impunctate and covered with dense fine pilosity.

First segment of tarsi longer than the other two together, first segment of hind tarsi very long. Apex of fore tibia of male with a strong prominent outwardly directed spine. Male genital capsule with dorsally directed opening divided into two by the outer margin giving off two acute and inwardly directed lobes (which however hardly rate as parandria). Most of front aperture covered by proctiger which is

prominently grooved longitudinally in the middle and cylindrically convex on either side of this. Hind aperture with two needle shaped claspers (parameres).

Type: Paradrymus exilirostris Bergroth 1916, monobasic.

Only one species in the genus, the type.

Paradrymus exilirostris Bergroth 1916

Plate 3, figs. A, B, C. Text fig. 1D

Paradrymus exilirostris Bergroth, 1916, Proc. roy. Soc. Vict., 29: 12.

Black, finely and subgranulately punctate, posterior lobe of pronotum and corium usually testaceous, punctate with fuscous, some lateral and discal spots on corium paler. Laminate margin of pronotum pale testaceous, also apical $\frac{2}{3}$ to $\frac{1}{2}$ of last segment of antennae. Membrane luteous, variegate with fuscous.

Beneath with femora black, tibiae and tarsi castaneous. Fore femora moderately incrassate, armed distally with six small and one large spine on ventral anterior margin, underside of fore femora flattened in apical half.

Length: 4.5-5.6 mm.

Localities: Bergroth records the species from Queensland and Victoria. I have seen specimens from South Anstralia: Croydon (S.A.M.); New South Wales: Mt. Koscinsko, 24 Nov. 1921, coll. R. J. Tillyard (A.N.I.C.); Hacking River National Park, August 1952, by sweeping bushes in forest, coll. J. Armstrong (U.Q.); Mt. Kosciusko, 5,000 feet, March 1889, coll. Helms; Mt. Kosciusko, Jan. 1937, coll. H. J. Carter; Island Bend, Mt. Kosciusko, 4,100 feet, 27 November 1952, coll. J. Armstrong (A.M.); Victoria: Halls Gap, 20 October 1945, coll. A. Burns (N.M.). Queensland: Brisbane, 6 Feb. 1946, coll. Brimblecombe; Lamington National Park, 29 Oct. 1957, from leaf mould, coll. I. C. Yeo; Bulburin State Forest, 27-29 May 1960, coll. E. A. Bernays (U.Q.); Emerald District, Aug. 1904, coll. E. J. (N.M.).

Isopeltus gen. nov.

Moderate in size within the tribe Drymini. Head large in relation to the size of the pronotum, strongly rugulose, anteclypens (tylus) prominent but not unduly produced. Eyes prominent, ocelli remote from each other and in a line with the hind margins of the eyes.

Antennae long, longer than the head and pronotum together, first segment considerably surpassing apex of head, second and third segments almost equal in the type species, second segment considerably the longest in the other two, antennae robust in two of the three species. Rostrum normal, the second segment the longest.

Pronotum with distinct collar, anterior and posterior margins almost straight, lateral explanate margin of pronotum straight and converging anteriad in basal ½ to 3 thence convex to become obsotete at base of collar, these lateral explanate margins relatively wide. Pronotum with a strong transverse impression in the middle, fore lobe strongly convex, hind lobe much less so, collar and hind lobe strongly punctate, fore lobe finely punctate.

Sentellum punctate, moderate in size with a prominent triradiate keel, the upical arm of which reaches the apex of the sentellum. Lateral margins of corium moderately sinuate, two rows of punctations paralleling claval suture and a basal outer half row more or less parallel to outer margin, remainder of corium with scattered punctations. Clavus with three rows of rather fine punctations, the median one converging towards the outer row posteriad and coalescing with it before apex.

Underside of head rugulose like upper side, thorax beneath punctate, prothorax heavily punctate, meso- and metathorax more finely so. Abdomen covered with a fine pilosity. Fore femora incrassate and armed on anterior margin of flattened apical ventral surface only. One spine large. Only the male genital capsule of the type species is available for study. The upper opening is partially divided into two by acute inward projections of the outer rim, two blunt parameres are present in the rear cavity while the proctiger does not cover the whole of the anterior cavity.

Type: Taphropettus australis Bergroth 1916.

The affinities of this genus are undoubtedly with *Brentiscerus* Seudder from which it differs in tacking a concave hind or lateral margin to the pronotum and the external margin of the corinm is only feebly concave basally. There are three species in the genus, two of them new; they may be separated by the following key:—

1. Antennae robust	2.
Antennae slender	Isopellus tenuicornis
	sp. nov.

Isopeltus australis (Bergroth 1916) nov. comb.

Plate 4, fig. B. Text fig. IC

Taphropellus australis Bergroth, 1916, Proc. roy. Sec. Viet., (N.S.) 29(1): 13.

Head black and finely and very thickly punctate, as long or longer than anterior pronotal lobe; autennae rather robust in comparison to the other species in the genus, piceous or testaceous, apical segment sometimes lighter. Rostrum testaceous, reaching middle of mesosternum. Pronotum distinctly impressed just behind middle, anterior lobe black, finely and very thickly punctate, longer than the stramineous hind lobe, the latter finely punctate and with five fuseous vittae of varying disposition, sometimes almost parallel. Sides of pronotum laminate, not sinuate in region of pronotal constriction, pale.

Scutellum black, finely punctate, with a median trivadiate keel, apex and lateral vittae between the median and lateral arms of the keel paler. Corium and clavus stramineous, the former with a median transverse bar and apex infuscated, also the three longitudinal veins. Clavus with three rows of punctations, corium with two rows parallel to the claval suture and other fine scattered punctations. Membrane pale and fuscous variegate, veins pale.

Underside mostly black, episterna, epimera, hind margin of metapleuron and legs brown to stramineous.

Fore femora incrassate and armed with one large central spine beneath and a series of smaller spines both interior and exterior to this.

Length: 2.5-4.5 mm.

Originally described from Victoria but quite widely distributed. South Australia: Whyalla, 10 August 1947, coll. D. S. (N.M.); Underdale, 30 December 1960, coll. G. F. Gross; 2, Mt. Lofty Ranges, 1 in tussocks, coll. N. B. Tindale; Second Creek, Mt. Lofty Ranges, 7 November 1884, coll. J. G. O. Tepper; 2, Adelaide, 1 in flood debris, coll. A. M. Lea; Lucindale, coll. Fenerheerdt; Mern Merna, at light,

2 November 1959, coll. P. Aitken (S.A.M.), Tasmania: Hobart, coll. A. M. Lea (N.M.) 1 ditto; Hobart, 11 August 1915, coll. C. Cole; Cradle Mountain, coll. Carter and Lea; 2, Launceston; St. Marys; 3 Strahan, 1 in moss and lichens, coll. Lea and Carter (S.A.M.): 2 Maydena, in presence of fruits of Eucalyptus regnans, 20 November 1962, coll. K. Cremer (Tas. Forestry Commission); Mt. Wellington, Hobart, 26-29 January 1955, coll. T. E. Woodward (U.Q.). New South Wales: Eccleston, in flood debris, coll. J. Hopson; 2, Dorrigo, coll. W. Herson (S.A.M.); Mt. Wilson, Blue Mountains, 8 June 1962, coll. D. K. McAlpine (A.M.); 2, Minna Murra, February 1962, coll. T. E. Woodward (U.Q.). Queensland: 3, Mt. Tambourine, coll. A. M. Lea; Blackall Ranges, coll. A. M. Lea; Rockhampton, attracted to light (S.A.M.); 3, Brisbane, at light, 16 November 1955, 7 December 1956, 25 January 1956, coll. T. E. Woodward; Mogill, Brisbane, 30 June 1956, coll. T. E. Woodward, Sunnybank, Brisbane, in light shade, January-December 1956, coll. F. S. Colliver; 2, Binna Burra, Lamington National Park, S.E. Queensland, in leaf debris amongst grass and Eucalyptus spp., 28 August 1953, coll. T. E. Woodward; 3, Noosa district, in sand dunes under herbs and fallen leaves and seeds of Casuarina, 17 April 1960, coll. T. E. Woodward: 2, Mt. Glorious, 1 on cunjeroi lilu, 1 from leaf mould, 23 September 1963, coll. G. Monteith; 1, Imbil State Forest from Helichrysum diosmifolium Less., 5 November 1957, coll. T. E. Woodward (U.Q.). Western Australia: Fremantle, 4 November 1934, coll. K. R. Norris (A.N.I.C.); King Georges Sound (A.M.). Norfolk Island: 8, coll. A. M. Lea (S.A.M.). Papua: Mt. Lamington, 1,300-1,500 feet, coll. C. T. McNamara (S.A.M.).

Remarks: Circumstances indicate that this little Lygaeid may be an important consumer of seed in the forest and is under investigation by the Tasmanian Forestry Commission as a possible cause of poor germination of broadcast *Eucalyptus regnans* seed.

Isopeltus obscurus sp. nov.

Plate 4, fig. D

Head black and finely and very thickly punctate, as long or longer than anterior pronotal lobe; antennae robust but more elougate than I. australis, second segment much the longest, densely pilose, this pilosity quite short; first three segments and base of fourth brown, apical three quarters of fourth luteous. First segment of rostrum brown, remainder yellowish, first segment subequal to second, third shorter, fourth shortest of all, black at apex.

Pronotum distinctly impressed just behind middle, anterior lobe black, finely and sparsely punctate, with a leeble longitudinal impression posteriorly. Hind lobe testaceous brown but with 2 semi-timate testaceous patches on either side of the middle, anteriorly touching the transverse suture, posteriorly the open ends often not reaching the hind margin; lateral expanded margins pale, almost straight and converging in basal \(^2_3\), thence convex to region of hind margin of collar where they disappear. Hind margin almost straight, perhaps a fraction convex, anterior margin straight, perhaps a fraction convex, a distinct collar present.

Sentellum black, coarsely and sparsely punctate, with a median triradiate keel, median arm of the keel reaching the apex. Apex and two small marginal semilurate spots which touch neither the end of the median arm or the ends of the lateral arms of the triradiate keel paler, tending luteous. Sometimes two pale spots on and near the extremities of the lateral arms of the triradiate keel.

Corium and clavus substantially fuscous, sometimes the clavus almost wholly stramineous, only the median and outer rows of punctations fuscous. Corium basally stramineous, apically dark except for a luteous spot near the inner apical angle and two or three longitudinal bars exterior to this, the outer touching the exterior margin. Scattered punctations over the corium. Membrane smoky, veins white.

Underside mostly very black, brown in the Cairns specimen, episterna, epimera, hind margins of pro- and metapleura, and legs (except trochanters) brown. Underside of thorax sparsely and strongly punetate, underside of abdomen pilose.

Fore l'emora incrassate and armed with one large central spine beneath and a series of smaller ones exterior to it, and perhaps one interior to this. Male not available for genitalia study.

Length: 3.5-4.5 mm.

Localities: Queensland: Holotype female [Reg. no. T6215], Moggill, from leaf litter, I September 1963, coll. G. Monteith (Q.M.); 2 paratype females, Noosa, on sea shore, 2 September 1959, coll. I. C. Yeo; 1 paratype female, Upper Cedar Creek via Samford, 3 lanuary 1963, coll. T. Brooks (U.Q.); 1 paratype female [Reg. no. 120,154], Cairns district, attracted to light, coll. A. M. Lea (S.A.M.). Lord Howe Island: a series of 6 nymphs mounted on a card in the S.A.M. very likely belong to this species.

Isopeltus tenuicornis sp. nov.

Plate 5, fig. B

Head black and finely punctate, about the same length as anterior pronotal lobe; first segment of antennae thicker than remaining segments, surpassing apex of head by about twice its length; second and fourth segments subequal, third somewhat shorter (45:55). First and second antennal segments and a median band on the fourth yellowish, third segment brownish-yellow. Rostrum stramineous, just reaching mid-coxae. Ratio of segments 37:45:12:15.

Pronotnun strongly impressed just about the middle, anterior lobe piccous, coarsely and densely punctate, hind lobe testaccous, coarsely punctate with brown. Anterior margin of pronotum somewhat concave, hind margin straight, strongly impressed inwardly of each humeral angle. Lateral explanate margins narrow in comparison to I. australis and I. obscurus, converging anteriad, very feebly sinuate in the region of the transverse impression and convex in the anterior third, pale.

Scutellum with the usual trivadiate keel, the lateral arms of which are expanded and bulbons; coarsely punctate in the apical \(\frac{2}{3} \), fuscous, but the keels and the apex lighter.

Corium and clavus testaceous, with a fuscous mark near the apical third of the claval suture and another on the apical exterior margin. Strongly and coarsely punctate, the clavus with three rows of coarse punctations. Membrane pale brown hyaline.

Underside brown, femora tibiae and tarsi yellowish. Fore femora incrassate, armed with one large spine beneath, five minute spines interior to this and another five exterior to it. No males available for study of genital capsule.

Length: 3.6 mm.

Location: Holotype female [Reg. no. T6216], Brisbane, 8 December 1951, coll. G. Saunders (Q.M.).

This species differs from the other two in its germs by its much thinner antennae and narrower lateral explanate margin of the pronotum.

Brentiscerus Scudder 1962

Brentiscerus Schdder, 1962, Canad. ent., 94(9): 989.

Head distinctly punctate, first segment of antennae surpassing apex of head.

Pronotum with anterior collar; lateral margins with pale explanate margin, somewhat concave in region of transverse constriction which is placed almost in the middle of the pronotum. Hind margin sinuate, straight or slightly concave, anterior lobe more finely punctate than posterior.

Scutellum deeply punctate with a prominent Y shaped keel.

Hemelytra somewhat concave in basal third, clavus with three rows of punctations, corium with two rows close to and parallel to claval suture.

Fore femora incrassate with a large spine and apically to it a series of smaller spines.

Male genital capsule with upper opening partially divided into two by inwardly directed processes of outer rim, claspers robust, pointed, proctiger covering most of anterior opening.

Type: Scolopostethus putoni White 1878, from New Zealand, by original designation.

This genus, Isopeltus, Retrodrymus and Gustrodes seem to form a group within the Drymini. Brentiscerus differs from the other three in having the lateral explanate margins of the pronotnm distinctly concave in the region of the transverse impression of the pronotum.

Brentiscerus putoni appears to have markings rather like Isopeltus australis and quite different from the four Australian species (all new) of the genus. These may be separated by the following key.

1. Small, under 2 mm long, pale yellow and brown in colour Brentiscerus pallidus sp. nov. Larger, over 2 mm longer, darker, 2. testaceous and dark brown

2. Large, 3.5 mm or over, fore femora auteriorly armed with a prominent spine just exterior to half way and prominent, though much smaller denticles exterior to this, posteriorly with 12-13 smaller denticles Brentiscerus major

sp. nov.

3.

- Smaller (2-3.2 mm), fore femora not so conspicuously armed, but with one minute tooth at about \(\frac{3}{4} \) the distance from base beneath \(\therefore \). \(\therefore \).
- 3. Apical half of corinm dark, with three prominent parallel elongate oval pale streaks included in this dark area.

Brentiscerus triocellatus sp. nov.

Brentiscerus diffusus sp. nov.

Brentiscerus major sp. nov.

Plate 4, fig. C. Text fig. 1F

Head triangular, coarsely and densely punctate, with a long hair just interior of each eye, dark brown, eyes separated from anterior angles of pronotum, tylus prominent, paler brown. First and second segments of antennae lighter brown, third and base of fourth often dark brown, apical ½ to ½ of fourth very pale brown. Rostrum reaching mid-coxae, first segment just surpassing base of head, second segment reaching to middle of fore coxae, yellowish, first segment a fraction darker.

Fore lobe of pronotum brown or blackish brown, distinctly and sparsely punctate, and with just the faintest trace of a longitudinal groove. Hind lobe luteous with scattered brown punctations, and a faint longitudinal impression anteriorly joining the faint one on the fore lobe; sometimes a faint tinge of brown on the disc on either side of the midline touching the hind margin. Pronotum with a prominent transverse constriction about the middle, anterior margin somewhat concave, hind margin markedly sinuate, lateral margin concave in region of transverse constriction, and just anterior to this evenly convex to the collar. Humeral angles slightly raised interiorly and hind margins impressed on either side just behind these.

Scutellum triangular with usual triradiate raised keel. Brown, parts of the keel sometimes lighter in colour.

Clavus and corium brownish-yellow, the latter with some areas as indicated on figure slightly darker. Clavus with the usual three rows of punctations, corium with two rows close to and parallel to claval suture, and exterior to these one complete sinuate row, and several incomplete rows, as well as scattered punctations. Membrane brownish and clear hyaline, mottled.

Beneath brown, tip of genital segment, hind margins of pro- and meta-pleura, femora (except base of fore femora), tibiae and tarsi yellowish. Underside of thorax coarsely punctate, underside of abdomen with golden pilosity. Underside of fore femora with 1 large and exterior to it 6-7 small denticles on the anterior margin and about 12 small denticles along the hind margin.

Male genital capsule with upper opening partially divided into two by inwardly directed processes of the outer surface. Claspers fairly long and cylindrical, pygophore large, covering most of hind opening, grooved longitudinally in the centre and convex on either side of this groove. Length: 3.5-4.5 mm.

Localities: Queensland: Holotype male [Reg. no. T6213], Lamington National Park, 28 January-3 February 1963, coll. G. Monteith (Q.M.); paratype male, Lamington National Park, ex leaf mould, 1 June 1955, coll. T. E. Woodward; 2 paratype males, paratype female, Lamington National Park, 11-17 February Monteith; 1 paratype female, National Park. 1963, coll. G. 2-6 June 1958, coll. F. A. Perkins; 1 paratype female, Brisbane, 1954, coll. T. E. Woodward; 1 paratype female, Springbrook, 11 April 1955, coll. R. E. Harrison; 1 paratype female, Gordonbrook, 3 June 1959, coll. E. Exley: 1 paratype, abdomen and wings missing, Killarnev, 11 November 1958, coll. I. C. Yeo; 2 paratype females, 1 paratype male, Atherton, 1 9 ex Rondalesia sp. 2 9 9 at light, 2, 4 and 19 October 1959, coll. G. Ettershank (U.Q.); 1 paratype female [Reg. no. 120,156], Mount Tambourine, coll. A. M. Lea (S.A.M.). New South Wales: Allotype female [Reg. no. 120,155], Dorrigo; I paratype female [Reg. no. 120,157], Upper Williams River, October 1926, coll. Lea and Wilson (S.A.M.); 1 paratype female, Dorrigo National Park, 30 May 1963, coll. G. Monteith (U.Q.); 1 paratype male, Wilson's Creek, near Mullumbimby, 29 January 1961, coll. D. K. McAlpine (A.M.). Victoria: 1 paratype female, Ferntree Gully, 26 July 1924, coll. F. E. Wilson (N.M.).

Brentiscerus pallidus sp. nov.

Plate 5, fig. C. Text fig. 1E

Head coarsely punctate, triangular, pale brown or yellowish brown, tylus protuberant and paler. Eyes blackish brown, inward of eyes on head on each side a prominent hair. First two antennal segments and apex of fourth yellowish, third and base of fourth brown. Rostrum reaching mid coxae, yellow, extreme apex somewhat infuscated. First segment of rostrum about reaching base of head, second fore coxae.

Pronotum with the usual transverse constriction about midway between base and apex, fore lobe mainly light brown except collar which is paler, extremely coarsely punctate; hind lobe almost luteous with dense coarse brown punctations, fore lobe posteriorly and hind lobe anteriorly impressed at the transverse impression to form a short longitudinal depression crossing the transverse suture. Auterior margin of pronotum straight or perhaps slightly concave, hind margin mainly straight but produced slightly and convexly behind the humeral angles, humeral angles somewhat elevated. Lateral margins convex at humeral angles, concave at region of transverse constriction and convex where bordering fore lobe.

Scutellum luteous, coarsely punctate with pale brown with the usual trivadiate elevated keel

Corium and clavus in the main luteous with coarse pale brown punctations, clavus with three rows, corium with two rows close to and parallel to claval suture, rest rather more scattered. Clavus between the median and outer rows of punctations, and corium in apical half (except three clongate included pale patches) infuscated with brown in the holotype, only vaguely so in the allotype. Membrane almost translacent.

Beneath light brown, anterior and posterior margins of propleura, hind margin of metapleura, lateral margins of abdomen and genital segments, all epimera and episterna, trochanters, and all the legs yellowish. Thorax coarsely punctate beneath, abdomen with a very sparse very short pilosity. Fore l'emora apparently unarmed.

Male genital capsule rather flattened above, upper opening partially divided into two eavities by two inwardly directed processes on the outer wall of the opening, claspers short, proctiger flattish on top and covering most of rear opening. Length: 2.20-2.25 mm.

Localities: Queensland: Holotype female and allotype male [Reg. nos. 120,158-9], Mount Tambourine, in rotting leaves, coll. A. M. Lea (S.A.M.).

Brentiscerus triocellatus sp. nov.

Plate 5, fig. D. Text fig. 16

Head triangular, brown or black, coarsely punctate, anteclypeus (tylus) prominent, paler. First two segments of antennae and apical of fourth yellowish brown, third and base of fourth brown. Rostrum reaching mid coxac, basal segment not reaching base of head, first segment and extreme apex of fourth brown, remainder yellow or luteous.

Pronotum with the usual transverse constriction about midway between base and apex, with a strongly punctate anterior collar. Fore lobe (except collar) brown and coarsely punctate. Hind lobe stramineous or luteous with coarse brown punctations, a prominent brown semicircular patch on the hind margin on either side of the middle. Anterior lobe with a definite longitudinal depression which crosses the transverse suture and continues on to the anterior portion of the hind lobe. Hind margin feebly sinuate, humeral angles very slightly convex posteriad. Lateral margins strongly concave in the region of the transverse sulcus, anterior to this feebly convex, anterior margin straight or very feebly concave. Lateral keel stramineous or luteous.

Scutchum brown and coarsely punctate all over, with the usual triradiate keel, this sometimes lighter on terminus of each arm, or only lighter on the terminus of the central arm at apex.

Clavus stramineous or Inteous with the usual three longitudinal rows of coarse punctations. Corium usually pale stramineous or Inteous in the basal half, sometimes infuscated basally as in the figured specimen, but always infuscated with brown in the apical half, within this latter brown area three paler oval spots in a line near the hind margin. Membrane brownish hyaline, veins white,

Underside dark brown, collar, hind margins of pro- and metapleura and genital segment a shade paler. Trochanters and femora yellowish brown, apices of fore femora, tibiae, and tarsi yellowish, fore femora apparently marmed. Underside of thorax strongly punctate, abdomen polished with a very sparse short pilosity. Male genital capsule with upper opening partially divided into two by inwardly directed processes of the outer wall, claspers relatively short and robust. Proctiger grooved longitudinally in middle, covering most of hind cavity. Length: 2.25-3.0 mm.

Localities: Queensland: Holotype male, allotype female, 2 paratype males [Reg. nos. 120,160-3], Mount Tambourine, in rotting leaves, coll. A. M. Lea; 2 paratypes, one a male, other abdomen missing [Reg. nos. 120,164-5], Cairns District, attracted to light, A. M. Lea (S.A.M.); 2 paratype males, Lamington National Park, from leaf mould in rain forest, 2-6 June, 1958, coll. F. A. Perkins (U.Q.).

Brentiscerus diffusus sp. nov.

Plate 6, fig. A

Somewhat larger than *Brontiscerus triocellatus* but very similar in general appearance.

Head triangular, coarsely and densely punctate, tylus prominent, paler. First three segments of antennae brown, apical segment entirely luteons. Rostrum reaches midcoxae, first segment brown, remainder luteous.

Pronotum very similar in shape, punctation, and colouration to B. triocellatus, but collar entirely brown or black, like fore lobe; and hind lobe darker, the fuscous patches on the hind margin much larger, confluent in the centre.

Scutellum likewise formed and coloured as B. triocellatus,

Corinm and clavus deep brown in colour, the former with a conspicuous pale patch on the outer margin midway between base and apex, and perhaps two vaguely lighter areas near hind margin, clavus with three rows of punctations, the region between the inner and median rows slightly raised, corium coarsely punctate, membrane brownish, yeius paler.

Beneath deep brown to black (head, pro-, and meso-thorax), hind lobe of propleuron only pater. Femora in basal half brown, apically yellow, tibiae and tarsi yellow, fore femora armed with one small denticle beneath apically and a row of extremely small denticles on the anterior margin. Male not available for study of genitalia. Length: 3.25-3.5 mm.

Localities: Queensland: Holotype female and paratype female [Reg. nos. 120,166-7], Cairns District, attracted to light, A. M. Lea (S.A.M.).

Gastrodomorpha gen. nov.

A genus in the Isopeltus, Brentiscerus section of the tribe sharing with these genera the scutellum with a prominent trivadiate keel and the sides of the pronotum with a prominent explanate keel; the pronotum is divided into two lobes by a prominent transverse impression about the middle. Like Apollonius the explanate lateral margins of the pronotum are straight but unlike Apollonius these margins are strongly convergent towards the front. Like the next, and last genus in this section (Retrodrymus) the lateral margins of the corium are convex, giving the insect the same pyriform appearance as a Gastrodes. The continuous lateral explanate margin of the pronotum should serve to distinguish it from the latter which does not occur in this area.

Head elongate, rather pentagonal, punctate, tylns strongly prominent. Antennae relatively thick, first segment surpassing apex of head. Rostrum attaining midcoxac, first segment not reaching base of head, second not quite reaching fore coxac.

Pronotum trapeziform, with a prominent collar, anterior margin somewhat concave, posterior very feebly so, with a prominent transverse constriction just behind the middle dividing it into two lobes. Lateral margins explanate from just behind collar to just before humeral angles, very feebly concave in the region of the transverse constriction and feebly convex in front of this, more noticeably so just behind the collar. Collar and hind lobe coarsely punctate and fairly densely so, fore lobe more finely and sparsely punctate.

Scutellum triangular with a prominent triradiate keel, coarsely and densely punctate all over.

Corium and clavus coarsely punctate, clavus with the usual three rows, corium with the punctations arranged in more distinct rows than in the other genera, longitudinal veins also more distinct. Lateral margin of corium straight in basal third, thence convex to apex, hemelytra widest at about level of apex of claval suture. Membrane just reaching apex of abdomen.

Fore femora increasate, armed on ventral surface with an anterior and posterior row of spines in the apical third, the innermost spine of the anterior row large. Male capsule unknown.

Type: Gastrodomorpha enigmatica sp. nov. the only species.

Gastrodomorpha enigmatica sp. nov.

Plate 6, fig. D

Head coarsely punctate, blackish brown, apex of anteelypeus (tylus) lighter. Eyes remote from anterior margin of pronotum, Antennae with first three segments brown, fourth missing. Rostrum yellowish.

Fore lobe of pronotum including collar brown, explanate margins and hind lobe yellowish, punctations on latter light brown.

Scutellum yellowish, punctations and extreme base light brown.

Corium and clavus yellow, punctations light brown, some vague indications of fuscous in the apical portions of the former. Membrane brown, veins lighter.

Beneath brown, posterior margins of pro- and meta-pleura lighter, legs yellow. Thoracic pleura with few punctations in centre of disc, abdomen shiny with short adpressed golden pilosity. Length: 3.2 mm.

Locality: Victoria: Holotype female [Reg. no. 120,168], Ringwood, in tussocks, coll. F. E. Wilson (S.A.M.).

Rétrodrymus gen. nov.

Retrodrymus is the last of the genera with an explanate margin to the pronotum and a prominent trivadiate keel to the scutellum. It differs from the other genera in this group by having the transverse constriction of the pronotum placed well posteriad, and by a larger and more convex fore lobe of the pronotum.

Head clongate, pentagonal, rugose, anteclypeus (tylus) strongly prominent, eyes remote from anterior margin of pronotum. Antennae relatively robust, first segment surpassing apex of head, second segment the longest, third a little shorter than second, fourth a little shorter than third and only slightly longer than first. Rostrum reaches hind coxae, first segment not reaching base of head, second segment just attaining fore coxae.

Pronotum rather elongate with a prominent coarsely punctate collar, feebly impressed well behind midline, the division of pronotum into fore and hind lobes is achieved not so much by a strong transverse impression as in most Drymine genera but rather by the termination posteriorly of the strongly convex fore lobe onto the general plane of the hind lobe. Fore lobe finely but fairly densely punctate,

hind lobe densely and coarsely punctate. Anterior margin of pronotum truncate or faintly convex, hind margin almost straight. Lateral margins explanate from behind collar to just in front of humeral angles, this lamina narrow and convex in online around raised fore lobe, very slightly concave at the division of the fore and hind lobes, and faintly divergent to humeral angles.

Scutellum triangular, coarsely punctate and with a very prominent trivadiate keel.

Corium and clavus strongly punctate: clavus with the usual three rows of punctations, corium narrowly impunctate exteriorly in the basal half, this region rather reflexed, punctate area with punctations tending to be arranged in rows. Outer margin of corium gently convex from base to apex, animal widest at a point about midway between apex of scutellum and apex of claval suture. Membrane somewhat surpassing apex of abdomen.

Beneath with proplenra and metaplenra strongly punetate, metaplenra punetate only in centre of disc. Fore femora relatively incrassate, beneath anteriorly with a row of about seven spines in the apical third, first of these very large, posteriorly with a row of small spines in apical half.

Male genital capsule with upper opening partially divided into two by two inwardly directed processes on onter margin, claspers relatively long, sides of opening behind claspers with long hairs.

Type: Retrodrymus abundans sp. nov., the only species in the genns,

Retrodrymus abundans sp. nov.

Plate 5, fig. A. Text fig. 1A, H

Head brown to black, apex of tylus luteous when head brown, and brown when head black. First two segments of antennae yellowish in brown headed specimens and apical two segments brown; in black headed specimens basal two segments brown and apical pair dark brown. Rostrum yellowish in brown headed specimens, yellowish brown in black headed specimens, basal segment somewhat darker, especially basally.

Swollen fore lobe of pronotum including collar brown when head brown, black when head black; hind lobe testaceous, lighter laterally, huneral angles and lateral keel luteous. Scutellum yellowish or brownish depending on the colour of the head and fore lobe of the pronotum, when brownish the apices of the three arms of the triradiate keel luteous. Punctations brown.

('orium and clavus yellowish or brownish according to the darkness of the general colouration, with a transverse infuscated bar neross corium, somewhat oblique at a level midway between the apex of the scutellum and the apex of the claval suture. Membrane a deep brown, veins somewhat lighter.

Underside of head and thorax blackish brown, abdomen deep brown, trochanters, femora, tibiae and tarsi yellowish. Length: 4.25-5 mm.

Localities: Tasmania: Holotype male mounted on eard with nymph, one paratype male, three paratype females [Reg. nos. 120,169-73] Devonport, coll. Lea; 2 paratype males, 2 paratype females [Reg. nos. 120,174-7], Waratah, cell. Lea & Carter; 1 paratype male [Reg. no. 120,178], Ulverstone, coll. Lea (S.A.M.). Victoria: Allotype female, Macedon, coll. Deane; one paratype male 3 paratype females, Eltham, coll. J. E. Dixon; 1 paratype female, Evelyn, 17 May 1925, coll. F. E. Wilson; 1 paratype female, Emerald District, coll. E. J.; 2 paratype females, 1 paratype male, Ferntree Gully, 20 November 1920, 26 July 1924, 26 May 1925, coll. F. E. Wilson; 1 paratype female, Ferntree Gully, coll. J. E. Dixon; 2 paratype females, Western Districts (N.M.).

Appolonius Distant 1901

Appolouius Distant 1901, Ann. Mag. nat. Hist., (7)8: 484. 1904, Fauna Brit. India Rhynch. 2: 62. Scudder 1956, Ent. mo. Mag. (4)17: 359. 1957, loc. cit.: 154.

Agunga Distant, 1906, Ann. Soc. ent. Belg., 50; 413, 1910, Fauna Brit. India Rhynch., 5; 58.

Appolonius is the first of a series of genera in which the pronotum has a prominent transverse impression and the lateral margins are explanate but in which the scutellum is devoid of a prominent raised trivadiate keel, in Appolonius the scutellum is somewhat raised medially. It differs from the other genera in this section by its nearly rectangular pronotum with almost straight lateral margins.

Head broad, short, triangular, without eyes as broad as anterior margin of pronotum. Eyes large, prominent, touching anterior margin of pronotum. Antennae inserted well away from eyes, robust, first

segment not or only just surpassing apex of head, all segments relatively short, rostrum just reaching fore coxae (crassus (Distant) from India), or reaching mid coxae (other species).

Pronotum strongly quadrate, with a strong transverse impression about the middle. Anterior margin straight (quadratus Scudder crassus (Distant) and picturatus Distant), or strongly convex (cinticornis Distant, territorialis n.sp. and robustus n.sp.), hind margin almost straight. Lateral margins explanate, almost straight and converging in the two Australian species, somewhat concave in the region of the transverse impression in the extra-Australian species, anterior lobe swollen and finely punctate, hind lobe flattish or arched and more coarsely punctate.

Scutellum transversely impressed across base, medially somewhat raised, finely punctate like fore lobe of pronotum.

Corium and clavus coarsely punctate, clavus with the usual three longitudinal rows of punctations, punctations on corium more or less arranged in rows, including 1½-2 rows paralleling claval suture. Lateral margins of corium almost straight, very feebly sinuate. Fore femora very incrassate, apically beneath with one large tooth followed by five or six spines.

Male capsule of territorialis only investigated. There is the usual partial division of the upper opening into two by acute inwardly directed projections of the lateral margins, the claspers are flat on top and pointed, the proctiger covers most of the anterior cavity, but in addition there are two larger rugose or punctate flaps lying over this and originating from the lateral margin, strongly reminiscent of Drymus species.

Type: Ophthalmicus cincticornis Walker 1872, monobasic.

There are two Australian species which can easily be distinguished from the extra-Australian species by the almost straight lateral margins of the pronotum.

Appolonius territorialis has the second and third femora pale yellow and the dark markings in the apical region of the corium are relatively fine, A. robustus has brown femora except at apex, is wider in relation to its length, and the dark markings in the hind partion of the corium are broader, the hind lobe of the pronotum is also more fuscous.

Appolonius territorialis sp. nov.

Plate 6, fig. B. Text fig. 11

Head dark brown, finely punctate, eyes brown. First two antennal segments yellow, apical pair brown. Rostrum yellowish, basal segment and basal third of second browner.

Anterior lobe of pronotum dark brown, finely punctate, hind lobe and lateral explanate margin luteous, the former with four faint brown longitudinal lines, one either side of the midline, sometimes fusing into one broad median band and another close to each lateral margin.

Scutellum deep brown, almost black, finely punctate, medially raised, transversely impressed near base.

Corium and clavus luteous with brown punctations, the former with two fuscous spots on the lateral margin, one in the middle, one in the apical angle and between these a prominent luteous spot. Apical margin of corium infuscated giving off three thin fuscous lines running more or less anteriorly, these are joined to one another where they terminate, the outer the longest and running into the medial marginal spot. Clavus with a brown streak in the distal half between the median and outer line of punctations. Membrane greyish hyaline, veins brown.

Thorax beneath deep brown, prothorax and mesothorax strongly punctate, metathorax with only a longitudinal band of punctations near exterior margin, lateral keel of prothorax luteons; beneath hind margin of propleura and metapleura and episterna and epimera a lighter shade than the rest of the thorax. Abdomen shining brown with a fine golden pilosity. Fore femora and all coxae brown, rest of legs yellowish, Length: 3.0-3.5 mm.

Locality: Northern Territory: Holotype male and 1 paratype male [Reg. nos. I20,179-80], Batchelor, on fruit of Roselle (Hibiscus sabdariffa), 20 October 1913, coll. presumed G. F. Hill (S.A.M.).

Appolonius robustus sp. nov.

Plate 6, fig. C

Head almost black finely punctate, eyes brown. First two segments yellowish, though apical third of second darker, terminal two segments deep brown, apex of last a shade paler. Rostrum brown.

Pronotion near black, lateral explanate margin Inteous only at, and anterior to, level of transverse impression. Hind lobe with raised humeri and two oblique lines somewhat inward of these, not reaching transverse impression, paler. Anterior lobe finely punctate, posterior lobe more coarsely so.

Scutellum formed and coloured substantially as in the previous species.

Corium and clavus basically luteons, clavus marked as in territorialis. Corium with two prominent fuscous marks on the exterior margin, one in the middle and the other apical, this latter large and extending along the whole of the posterior margin of the corium, these two lateral marks joined by a fuscous line. Corium with three other fuscous lines, one given off in the middle of the widely black hind margin runs forward to end freely, of the other two one is given off about \frac{1}{3} out from the apex of the clavus and the other right at the clavus to meet at about the level of the tip of the scutellum, the inner one running along the claval suture in its apical third, the other curving inward to meet it, within these lines a prominent silvery patch. Membrane hyaline grey, veins brown.

Thorax and abdomen beneath almost black, the former punctate as in A. territorialis, the latter with a whitish pilosity. All femora brown except at extreme base and apex, tibiae and tarsi yellow. Length; 3.25-3.5 mm.

Localities: Queensland: Holotype male [Reg. no. 120,181], Magnetic Island, coll. A. M. Lea (S.A.M.); allotype female, Brisbane, 15 May 1954, coll. K. L. S. Harley; paratype female, Brisbane, on bark of Ficus (Indian fig.), 16 May 1951, coll. T. E. Woodward (U.Q.).

Scolopostethus Fieber 1861

Scolopostethus Fieber, 1861, Europ. Hem. ;49, 188. Stål, 1872, Öfv, svenska Vetensk Akad. Förh. 29(7): 60. Saunders, 1892, Hem. Het. Brit. Is.: :108. Horvath, 1902, Rev. d'Ent., 11: 253. Lethierry & Severin, 1894, Cat. gén. Hém., 2: 228. Distant, 1903, Fauna Brit. Ind., Rhynch., 2: 92. Guerin & Penau 1906, Renues Bul. Soc. Sei. méd., 14: 67. Horvath, 1911, Ann. Mus. nat. Hung., 9: 337. Van Duzee, 1917, Univ. Cal. Publ. Ent. 2: 199. Southwood & Leston, 1959, Land and Water Bugs Brit. Is., :89. Slater & China, 1961, Bull. Zool. Nomencl., 18(5): 351.

Tritomacera Costa 1841, Ann. Soc. ent. France (1)10: 296-297. Fieber, 1861, Europ. Hem. 44: 163.

Tritomocera Agassiz, 1846, Nomen. zool. Index. Univ. :376.

Tritomacera 1848 ibid. 1092.

Manatanus Distaut, 1909, Ann. Mag. nat. Hist., (8)3: 494. 1910, Fauna Brit. Ind. Rhynch., 5: 86.

Head triangular, anteclypeus (tylus) prominent, eyes not quite touching anterior margin of pronotum, first segment of antennae just (new species described here), or considerably passing apex of head; rostrum reaching middle coxae.

Pronotum quadrate or trapezoidal, lateral margins straight or sinnate in region of the strong transverse constriction which is placed about half way back, lateral margins explanate. Anterior and posterior margins straight or concave.

Scutellum triangular, somewhat tumid, without any trace of a triradiate keel.

Clavus with the usual three rows of punctations, corium with two rows parallel to the claval suture and the rest for the most part scattered in the apical area, lateral margins of coria feebly sinuate.

Thorax beneath strongly punctate, abdomen shiny, finely pilose. Anterior femora incrassate with a large spine ventrally just outward of the halfway point and a series of smaller spines between it and the apex. Fore femora somewhat curved, in the male enlarged apically and bearing several teeth. First segment of hind tarsi longer than segment two and three together.

Type: Scolopostethus cognatus Fieber 1860, selected by Distant 1904 (loc. cit.).

This appears to be a complex and rather ill characterized genus, some of the species appear to be among the most contrasting coloured in the Drymini. It is with some hesitation that I place the following species in the genus, considering its short and robust antennae.

Scolopostethus forticornis sp. nov.

Plate 7, fig. A. Text fig. 1J

Head piceous, upper surface finely punctate, apex of tylns and eyes lighter. Antennae brown, apical half of first segment and sometimes apices of second and fourth yellowish. Antennae short, first segment just surpassing apex of head. Rostrum yellowish, thin, first segment just surpassing apex of head,

Pronotum piceous to rather velvety brown, finely and fairly densely punctate, punctations tending to be difficult to see, in some specimens hind lobe a shade paler than fore lobe. Explanate lateral margins concolorous with rest of pronotum, somewhat sinuate in region of transverse pronotal constriction and broadly convex in front of this to region of collum. Hind margins almost straight, anterior margin concave,

Scutellum somewhat convex, velvety piccous or brown, finely punctate.

Apical § of corium and apical half of clavus piceous or brown, basal area of clavus and corium and a lateral spot on the latter about § the way along the onter margin luteous, apical margins of the clavus and along the claval suture also yellowish in some specimens. Punctations only distinct in luteous areas and brown. Membrane apically generally piceous with a large luteous semilunate spot at the base occupying the whole of the basal margin and extending about ½-½ way along the inner margin, this spot interrupted by a hook shaped piceous mark near its inner basal area.

Beneath piccons to deep brown, fore femora brown, apex lighter, rest of legs rather yellowish brown, tibiac somewhat darker.

Male genital capsule with upper opening partially divided into two by inwardly directed processes on the outer margin, claspers flat, somewhat upturned apically, anterior cavity almost wholly covered by longitudinally impressed pygophore. Length: 3.25-4.25 mm.

Localities: South Australia: Holotype male, allotype female, 1 paratype male [Reg. nos. I20,182-4], Lock 4, River Murray, under red gum (Eucalyptus camalduleusis) bark, 18 May 1964, coll. G. F. Gross; 1 paratype male, 1 paratype female [Reg. nos. I20,185-6], Wilpena Pound, Coll. H. M. Hale; 1 paratype male [Reg. no. 120,187], Pt. Lincoln, coll. A. M. Lea (S.A.M.). Victoria: 4 paratype males, 6 paratype females, Lake Hattah, coll. J. E. Dixon (N.M.). Queensland: 1 paratype (genitalia missing), Gayndah, coll. Masters (A.M.).

Pseudodrymus gen. nov.

Body oblong or oval, rugosely punctate, generally blackish. Head with eyes touching or a little separated from anterior margin of pronotum, head triangular, tylus very prominent. Pronotum relatively

short, generally narrower anteriorly than posteriorly with a shallow transverse constriction rather behind the middle, anterior margin straight or concave, posterior margin likewise variable, lateral margins generally rather concave in region of transverse impression, convex in front of this, lateral margins acute, only very narrowly explanate.

Scutellum triangular, convexly raised near base but without a trace of a triradiate keel.

Hemelytra (except membrane) strongly and coarsely and very densely punctate, slightly convex above.

Fore femora swollen and armed near apex with a short spine, exterior to that several smaller ones.

Male genital capsule with upper opening strongly constructed into two lobes by acute inwardly directed processes of the outer wall, claspers large and flat, proctiger covering most of anterior cavity.

Type: Pseudodrymus florestalis n.sp., the only species in the genus.

Pseudodrymus florestalis sp. nov.

Plate 7, fig. B. Text fig. 1K

Black or piceous, very coarsely and very densely punctate above. Apical half of terminal antennal segment, explanate lateral margin of pronotum basally, and hind lobe of pronotum vaguely, and sometimes corium laterally rather paler. Several specimens in the series are all castaneous.

Head triangular, tylus acute, antennae with a rather long pilosity, some of it longer than the width of the segments. Rostrum thin, reaching mid coxae.

Transverse impression of pronotum shallow, fore lobe quite low, anterior and posterior margins almost straight, lateral margins only feebly sinuate in the region of the transverse impression.

Scatellum rather strongly excavate at extreme base, behind this usually transversely swollen.

Corium and clavus extremely densely and coarsely punctate, former somewhat convex and veins distinct. Membrane dark grey brown, veins lighter.

Beneath with thorax strongly punctate, abdomen shining with a dense golden pilosity, especially apically. Fore femora swollen and armed with one short spine near the apex, with one or two extremely minute teeth on both ventral margins near it.

Parandria of male genital capsule rather triangular in shape and fairly smooth. Length: 2.75-3.2 mm.

Localities: Qneensland: Holotype female [Reg. no. T6214, in Q.M.], 4 paratype females, Whiteside Crossing, N. Pine River S.E. Queensland, in flood debris, 12 July 1963, coll. G. Monteith; allotype male, S.E. Queensland, 1963, coll. G. Monteith; 1 paratype female, Noosa District, on sand dunes under herbs and fallen leaves of Casuarina, 17 April 1960, coll. T. E. Woodward. Western Australia: 2 paratype males, 5 paratype females, Morley Park, Perth, ex dead Banksia leaves, 27 August 1959, coll. T. E. Woodward (U.Q.); 1 paratype male, King George's Sound (A.M.).

Austrodrymus gen. nov.

Obovate, very strongly punctate. Head broad, triangular, rather conical in side view, strongly punctate, clypens not very obvious. Antennae relatively robust, first segment barely or not surpassing apex of head. Rostrum about reaching mid coxae, first segment conspicuously thicker than rest, reaching base of head.

Pronotum very strongly punctate, with a shallow transverse constriction placed well behind the middle, anterior and posterior margins somewhat convex, lateral margins more broadly laminate than in Drymus, straight from base to about middle of fore lobe, thence convex anteriorad. Anterior lobe rather low, both lobes strongly and closely punctate.

Scutellum triangular, strongly and closely punctate, fairly flat, raised slightly basally and medially, these two raised areas separated by a feebly marked transverse groove.

Corium and clavus punctate, the latter with the usual three longitudinal rows, those on the corium tending to be arranged in rows, the innermost two close together and paralleling the claval suture, the outermost row parallel to the narrow and impunctate exterior margin.

Underside of thorax very strongly and closely punctate, abdomen shiny with a rather long adpressed pilosity, particularly apically.

Fore femora rather incrassate and armed near apex with a small tooth and apically to this some five much smaller spines.

Male genital capsule with upper opening partially divided in two by inwardly directed lobes of the onter wall, claspers pointed, proctiger covering all of hind cavity and longitudinally grooved in the middle.

Type: Austrodrymus flindersi sp. nov., the only species.

Austrodrymus flindersi sp. nov.

Plate 7, fig. C. Text fig. 1L

Head, anterior lobe of pronotum, and scutchim piecous to dark brown. Basal two thirds of first segment of antennae, hind lobe of pronotum, and tip of scutchim brown, so also hind margin of corium, a rectangular mark enclosing a pale smaller rectangular mark in the inner apical angle of the corium, and a short longitudinal line given off from about midway along the hind margin and directed anteriorly. Remainder of corium, clavus, laminate lateral margin of pronotum, apex of first antennal segment, and remaining segments yellowish brown. Membrane pale whitish yellow.

Underside deep brown to brown, rostrum and legs a somewhat lighter brown. Length: 2.5-2.75 mm.

Localities: South Australia: Holotype male [Reg. no. 120,188], Flinders Island, coll. T. D. Campbell (S.A.M.). Western Australia: 1 paratype male, Morley Park, Perth, from dead *Banksia* leaves, 27 August 1959, coll. T. E. Woodward.

Brachydrymus gen. nov.

Obovate, head pronotum and hemelytra strongly rugulose, scattellum punctate. Head triangular, eyes almost fouching auterior pronotal margins, clypeus not prominent. Antennae fairly slender, first segment just surpassing apex of head. Rostrum reaches mid coxae, first segment not attaining base of head.

Pronotum rather quadrate, broad, with very little trace of a transverse pronotal constriction and that placed well behind the middle. Anterior and posterior margins rather concave, lateral margins acute but hardly laminate, straight in basal \(\frac{2}{3} \), convex anteriorly. Pronotum densely rugulose and shortly pilose all over.

Scutellum flat, triangular, rather more punctate than rugulose, with a scattered short pilosity.

Hemelytra micropterous, extending only to two thirds the length of the abdomen, membrane absent, claval suture difficult to see, whole surface of hemelytra rugulose with a short pilosity. Exposed dorsal surface of abdomen similarly rather rugulose and with the same short pilosity.

Underside of thorax strongly rugose except for blackish hoary evaporative area. Abdomen rugulose beneath with a scattered short pilosity.

Fore femora mederately incrassate, very finely rugulose, apparently without spines. Male genital capsule rugulose posteriorly, with upper opening feebly constricted into two and with membraneous proctiger concealing the vesica. Claspers shortish, rather robust.

Type: Brachydrymus lateahundans sp. nov. the only species.

Brachydrymus lateabundans sp. nov.

Plate 7, fig. D. Text fig. 1M

Dorsal surface piceous, pilosity silverish. Antennae, rostrum, eyes and legs dark brown, in one specimen the hemelytra are also somewhat paler than the rest of the body.

Remaining features as for generic diagnosis. Length: 2.50-3.50 mm.

Localities: Victoria: Holotype male, allotype female, 1 paratype female, Ferntree Gully, 26 April 1924, coll. F. E. Wilson; 1 paratype male, 1 paratype female, Ferntree Gully, 28 September 1914, coll. J. E. Dixon; 2 paratype males, 1 paratype female, Croydon, coll. J. E. Dixon (N.M.). Queensland: 1 paratype female [Reg. no. 120,189], Gladstone, coll. A. M. Lea. Northern Territory: 1 paratype female [Reg. no. 120,190], Darwin in soil and leaf litter near sports oval, 8 December 1960, coll. R. V. Sonthcott (S.A.M.).

DISCUSSION

This tribe of Rhyparochrominae is undoubtedly a very difficult one in which to characterize generic differences and relationships.

On the basis of external characters there would appear to be three groups in this fauna. The first group represented by the one genus Mizaldus lacks entirely lateral explanate carinae to the rather convex pronotum. A second group has lateral explanate carinae or laminae to the pronotum and a prominent triradiate keel to the scutellum, and would include Paradrymus, Megadrymus, Isopeltus, Brenticerus and Gastrodomorpha. A third group has prominent lateral explanate laminae to the pronotum but lacks entirely any sign of a triradiate keel on the scutellum, although the centre of the scutellum may be raised. In this group fall Apollonius, Scolopostethus, Pseudodrymus and Austrodrymus. Brachydrymus seems to be a modified member of the last group where flattening of the pronotum has resulted in an almost complete elimination of the lateral laminae.

An examination of the dorsal morphology of the male genital capsule complicates this picture somewhat. The typical arrangement is for the upper opening to be constricted into somewhat of an 8 shape by inwardly directed protuberances, one on each of the opening. The anterior cavity is always larger than the posterior one so formed. In Australian species a prominent and moderately chitinized proctiger always covers most of the anterior cavity and is located a little below the level of the outer walls, in many species this is depressed along the median longitudinal line and the structure rises rather convexly on either side of this depression to meet the outer margin of the cavity. Two claspers or parameres are present in the posterior cavity, becoming apparent just behind the inwardly directed processes of the outer wall. In most Australian species they are fairly short and pointed but in *Pseudodrymus* rather flattened.

Two genera differ somewhat from this general type. The male capsule of Megadrymus is rather differently shaped and has short very acuminate claspers swollen basally and the capsule has prominent pilose ridges apically on either side of the middle. The male capsule of Appolonius has two prominent rugose flaps or parandria given off from the side wall of the hind cavity (this cavity is much larger than the anterior one in this genus) which partially overlap and which cover part of the proctiger. These flaps are also present in British species of Drymus Fieber and in the subgenus Sylavadrymus Le Quesne, their bases do not cover their point of attachment as in Appolonius (Le Quesne 1956, Ent. mon. Mag., 4(202): 337-341, or 92(4): 17. The capsule of Appolonius was the only one cleared and permanently mounted in this study; the others were examined under the highest powers of the binocular microscope after hydroxide treatment of the tip of abdomen and extrusion of the capsule by light pressure. In the cleared mount of Appollonius more of the basal structure of the male claspers can be seen and in general the structure resembles Le Quesne's figures 19, 21 and 23. Males of Mizaldus and Gastrodomorpha were not available for examination.

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RESUME

On connaissait antérieurement deux espèces de Drymini de l'Australie et une de la Nouvelle-Guinée. Comme resultat de cet étude, où on a employé toutes les collections disponibles australieurnes, on a demonstré l'occurrence de deux espèces dans la Nouvelle-Guinée, une d'elles est espèce commune dans l'Australie, et de dix-sept espèces, dont

quinze sont nouvelles, de l'Australie. On donne des clefs, des illustrations, et des descriptions des dix-huit espèces et les met dans douze genres, dont huit sont nouveaux. Où disponible on a employé la morphologie de la capsule mâle genitale en conjunction de details exterieurs pour donner une indication a l'arrangement et à les rélations entre ces douze genres.

EXPLANATION OF PLATES 3 TO 7

PLATE 3

- Fig. A. Paradrymus exilirostris Bergroth, whole insect.
- Fig. B. Fore leg of Paradrymus exilirostris Bergroth, female.
- Fig. C. Fore tibia of Paradrymus exilirostris Bergroth, male.
- Fig. D. Megadrymus terraereginae n.sp.

PLATE 4

- Fig. A. Mizatdus woodwardi Slater & Carayon.
- Fig. B. Isopeltus australis (Bergroth).
- Fig. C. Brentiscerus major n.sp.
- Fig. D. Isopettus obscurus n.sp.

PLATE 5

- Fig. A. Retrodrymus abundans n.sp.
- Fig. B. Isopettus tenuicornis n.sp.
- Fig. C. Brentiscerus pallidus n.sp.
- Fig. D. Brentiscerus triocellatus n.sp.

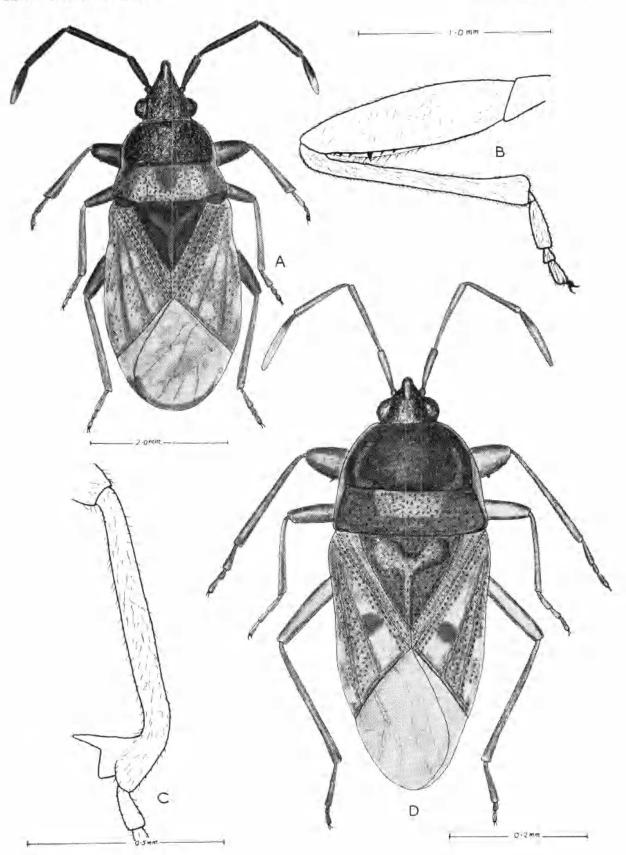
PLATE 6

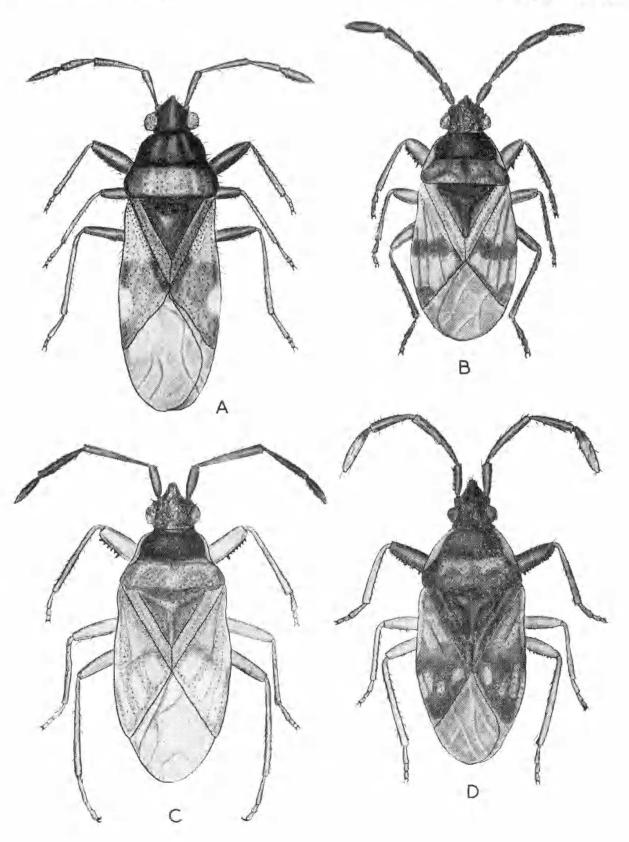
- Fig. A. Brentiscerus diffusus n.sp.
- Fig. B. Appolonius territorialis n.sp.
- Fig. C. Appolonius robustus n.sp.
- Fig. D. Gastrodomorpha enigmatica n.sp.

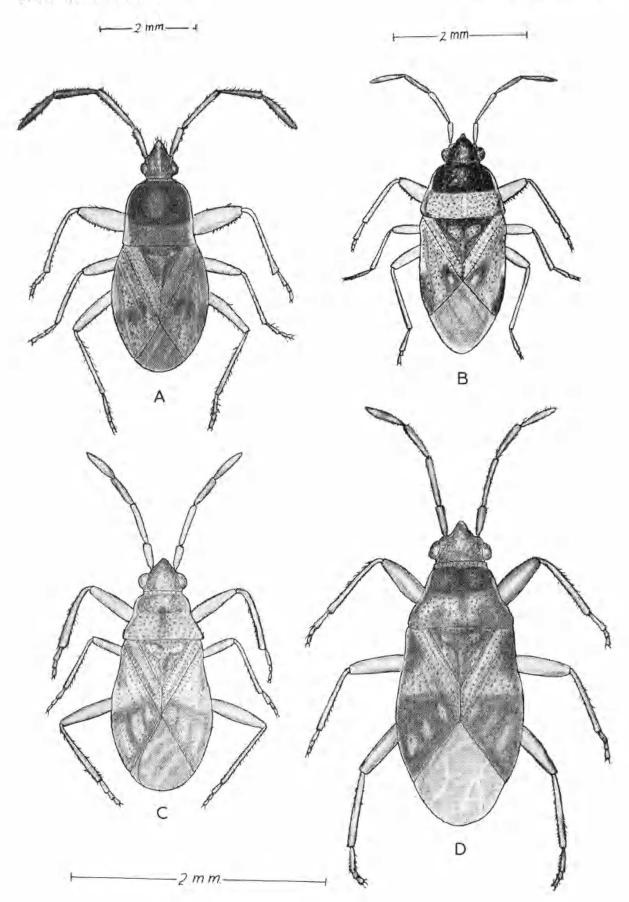
PLATE 7

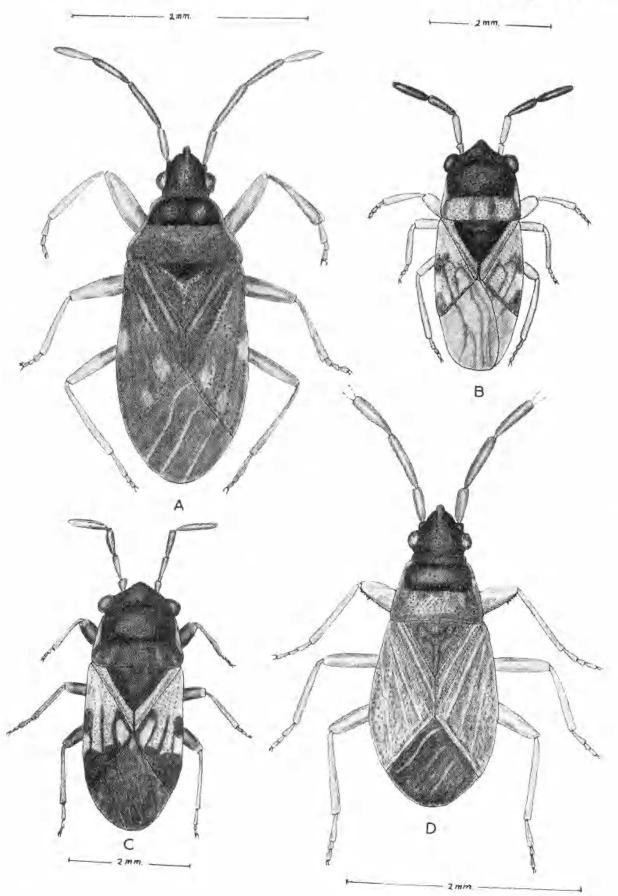
- Fig. A. Scolopostethus forticornis n.sp.
- Fig. B. Pseudodrymus florestalis n.sp.
- Fig. C. Austrodrymus flindersi n.sp.
- Fig. D. Brachydrymus lateabundans n.sp.

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